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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent Application

Applicant(s): Bolle et al.  
Docket No: YOR919990588US3  
Serial No.: 10/653,804  
Filing Date: September 3, 2003  
Group: 2623  
Examiner: Mehrdad Dastouri

I hereby certify that this paper is being deposited on this date with the U.S. Postal Service as first class mail addressed to the Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

Signature: *[Signature]* Date: November 17, 2005

Title: System and Method for Distortion Characterization in Fingerprint and Palm-Print Image Sequences and Using this Distortion as a Behavioral Biometrics

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SUBMISSION OF NON-PATENT REFERENCES  
CITED IN AN INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

In response to the Examiner's request in an Office Action dated May 24, 2005, Applicants submit herewith copies of non-patent literatures indicated in the Information Disclosure Statement filed September 3, 2003(copy enclosed) in the above-referenced application.

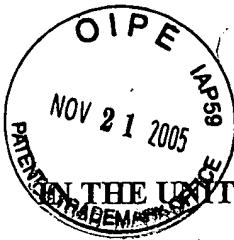
In the event of non-payment or improper payment of a required fee, the Commissioner is authorized to charge or the credit **International Business Machines Corporation's Deposit Account No. 50-0510** as required to correct the error.

Respectfully submitted,

*[Signature of Kevin M. Mason]*

Date: November 17, 2005

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Applicant(s):** Rudolf Maarten Bolle  
Chitra Dorai  
Nalini K. Ratha

**Docket No.:** YOR919990588US2

**Serial No.:** Unassigned

**Filing Date:** Concurrently Herewith

**Title:** **SYSTEM AND METHOD FOR DISTORTION CHARACTERIZATION IN  
FINGERPRINT AND PALM-PRINT IMAGE SEQUENCES AND USING  
THIS DISTORTION AS A BEHAVIORAL BIOMETRICS**

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INFORMATION DISCLOSURE STATEMENT

Commissioner of Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

Pursuant to 37 C.F.R. §§1.56, 1.97 and 1.98, Applicant's attorney wishes to bring to the attention of the Patent and Trademark Office the following document(s) listed on the accompanying PTO Form 1449. Copies of non-patent documents can be provided upon Examiner's request.

**U.S. Patent Documents**

1. U.S. Patent No. 5,933,515
2. U.S. Patent No. 6,323,846
3. U.S. Patent No. 6,388,657
4. U.S. Patent No. 6,466,686
5. U.S. Patent No. 6,487,306

**Other Documents**


6. Bergen et al., "Hierarchical Model-Based Motion Estimation," pgs. 237, 251 (May 1992).
7. Dorai et al., "Extracting Motion Annotations from MPEG-2 Compressed Video for HDTV Content Management Applications," International Conference on Multimedia Computing and Systems, June 7-11, 1999, Florence Italy, IEEE Multimedia Systems '99, Vol. 1, pgs. 673-678 (1999).

8. Haskell et al., "Digital Video: An Introduction to MPEG-2," Motion Compensation Modes in MPEG, Chapter 7, pgs. 146-155 (1997).
9. Nalwa, V.S., "Automatic On-Line Signature Verification," Proceedings of the IEEE, Vol. 85, No. 2, pgs. 215-239 (February 1997).
10. Ratha et al., "Adaptive Flow Orientation-Based Feature Extraction in Fingerprint Images," Pattern Recognition, Vol. 28, No. 11, pgs. 1657-1672 (1995).
11. Ratha et al., "A Real-Time Matching System for Large Fingerprint Database," IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 18, No. 8, pgs. 799-813 (1996).

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, or as an admission that the information cited is considered to be material to patentability or that no other material information exists.

Respectfully submitted,

Date: September 3, 2003

  
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Applicant: Rudolf Maarten Bolle  
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Nalini K. Ratha  
Docket No.: YOR919990588US2  
Serial No.: Unassigned  
Filing Date: Concurrently Herewith  
Group: Unassigned

# LIST OF PUBLICATIONS FOR APPLICANT'S INFORMATION DISCLOSURE STATEMENT

## U.S. PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS/SUBCLASS	FILING DATE
					IF APPROPRIATE
_____	5,933,515	08/03/99	Pu et al.		
_____	6,323,846	11/01	Westerman et al.	345/173	
_____	6,388,657	05/02	Natoli et al.	345/168	
_____	6,466,686	10/02	Senior, Andrew William	382/124	
_____	6,487,306	11/02	Jain et al.	382/125	

## FOREIGN PATENT DOCUMENTS

EXAMINER INITIAL	DOCUMENT NO.	DATE	COUNTRY	CLASS/SUBCLASS	TRANSLATION	
					YES	NO

## OTHER DOCUMENTS

EXAMINER INITIAL	REF NO.	AUTHOR, TITLE, DATE, PERTINENT PAGES, ETC.
_____		Bergen et al., "Hierarchical Model-Based Motion Estimation," pgs. 237, 251 (May 1992).
_____		Dorai et al., "Extracting Motion Annotations from MPEG-2 Compressed Video for HDTV Content Management Applications," International Conference on Multimedia Computing and Systems, June 7-11, 1999, Florence Italy, IEEE Multimedia Systems '99, Vol. 1, pgs. 673-678 (1999).
_____		Haskell et al., "Digital Video: An Introduction to MPEG-2," Motion Compensation Modes in MPEG, Chapter 7, pgs. 146-155 (1997).
_____		Nalwa, V.S., "Automatic On-Line Signature Verification," Proceedings of the IEEE, Vol. 85, No. 2, pgs. 215-239 (February 1997).
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_____		Ratha et al., "A Real-Time Matching System for Large Fingerprint Database," IEEE Transactions on Pattern Analysis and Machine Intelligence, Vol. 18, No. 8, pgs. 799-813 (1996).

Examiner

Date Considered

**Examiner:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to Applicant.

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